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DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

<u>L5</u>	L1 and vot\$3	1	<u>L5</u>
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L8: Entry 5 of 35

File: PGPB

Apr 11, 2002

DOCUMENT-IDENTIFIER: US 20020042751 A1

TITLE: Systems and methods for business to business financial analysis

Detail Description Paragraph (75):

[0144] The systems and methods of the present invention automatically calculate and track activity and savings cost reductions at the detailed level, and, in some embodiments, allows users to create financial summaries and business cases through expense rule information, user information, rollout schedule information, and knowledge base information. The present invention provides the first system that allows a user to generate a detailed business case by entering a small amount of data using a simple electronic user interface (e.g., an input Wizard). In certain embodiments, the system and methods of the present invention track financial measurements over certain time periods. In preferred embodiments, the system and methods of the present invention track financial measurements on a quarterly level or based on some other accounting period.

Detail Description Paragraph (95):

[0164] In some preferred embodiments of the present invention, after a solution has been implemented (i.e. a vendor product purchased and employed), a continuous tracking system is employed to monitor the results of the solution. In such embodiments, various survey data or other collected data is compiled to determine the actual effects from the implementation of the solution. Survey data includes, but is not limited to, data on the amount of savings obtained for one or more roles and activities, data on when savings are obtained, data on the amount and timing of costs, data on expenses and accuracy of the original expense rules, and the like. This data may then be added to the knowledge base of the present invention to improve future calculations using the cost justification software and methods of the present invention. For example, the improved knowledge base may be used by the company implementing the solution to make better decisions in further implementation of the system, in cancelling the solution, or in changing solutions. The improved knowledge base includes improvements on the identity of the roles and activities that are most relevant to select in future analyses and improvements in the details of the expense rules. The improved knowledge base may also be used by other companies employing the solution or similar solutions. In some embodiments of the present invention, the continuous tracking system generates periodic business cases that are provided to management of the company so that they may make informed decisions.

Detail Description Paragraph (138):

[0207] In preferred embodiments, the desktop application or Web application is hosted by an intermediate party. In some such embodiments, the intermediate party sells access to the software as a value-added service. Buyers may use this service to manage the deployment of a vendor's solution, track activities and costs over time and then link the results back to the business case. Empirical data may be acquired from a survey generator to develop knowledge bases. This feature not only provides superior strategic differentiation for vendors, but can be used to generate additional revenue streams for the intermediate party by providing a variety of additional and related services to vendors, buyers, and other parties (e.g., collection, compilation, and distribution of customer lists to other parties interested in selling products to, or otherwise communicating with vendors or buyers).

**WEST**

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L8: Entry 6 of 35

File: USPT

Oct 21, 2003

DOCUMENT-IDENTIFIER: US 6636242 B2

TITLE: View configurer in a presentation services patterns environment

Detailed Description Text (626):

Microsoft Message Queue Server (MSMQ, formerly known as Falcon) Publish and Subscribe TibCo's Rendezvous TIB/Rendezvous' publish/subscribe technology is the foundation of TIBnet, TibCos solution for providing information delivery over intranets, extranets and the Internet. It is built upon The Information Bus.RTM. (TIB.RTM.) software, a highly scalable messaging middleware technology based on an event-driven publish/subscribe model for information distribution. Developed and patented by TIBCO, the event-driven, publish/subscribe strategy allows content to be distributed on an event basis as it becomes available. Subscribers receive content according to topics of interest that are specified once by the subscriber, instead of repeated requests for updates. Using IP Multicast, TIBnet does not clog networks, but instead, provides for the most efficient real-time information delivery possible.

Detailed Description Text (1070):

Workflow can be further divided into the following components: Role management Role management ie provides for the assignment of tasks to roles which can then be mapped to individuals. A role defines responsibilities which are required in completing a business process. A business worker must be able to route documents and folders to a role, independent of the specific person, or process filling that role. For example, a request is routed to a supervisor role or to Purchasing, rather than to "Mary" or "Tom." If objects are routed to Mary and Mary leaves the company or is reassigned, a new recipient under a new condition would have to be added to an old event. Roles are also important when a number of different people have the authority to do the same work, such as claims adjusters; just assign the request to the next available person. In addition, a process or agent can assume a role; it doesn't need to be a person. Role Management Services provide this additional level of directory indirection. Route management Route management enables the routing of tasks to the next role, which can be done in the following ways: Serial--the tasks are sequentially performed; Parallel--the work is divided among different players; Conditional--routing is based upon certain conditions; and Ad hoc--work which is not part of a predefined process. Workflow routing services route "work" to the appropriate workflow queues. When an application completes processing a task, it uses these services to route the work-in-progress to the next required task or tasks and, in some cases, notify interested parties of the resulting work queue changes. The automatic movement of information and control from one workflow step to another requires work profiles that describe the task relationships for completing various business processes. The concept of Integrated Performance Support can be exhibited by providing user access to these work profiles. Such access can be solely informational--to allow the user to understand the relationship between tasks, or identify which tasks need to be completed for a particular work flow--or navigational--to allow the user to move between tasks. Route Management Services also support the routing and delivery of necessary information (e.g., documents, data, forms, applications, etc.) to the next step in the work flow as needed. Rule Management A business process workflow is typically composed of many different roles and routes. Decisions must be made as to what to route to which role, and when. Rule Management Services support the routing of workflow activities by providing the intelligence necessary to determine which routes are appropriate given the state of a given process and knowledge of the organization's workflow processing rules. Rule Management Services are typically implemented through easily maintainable tables or rule bases which define the possible flows for a business event. Queue Management These services provide access to the workflow queues which are used to schedule work. In order to perform workload analysis or to create "to do lists" for users, an application may query these queues based on various criteria (a business event, status, assigned user, etc.). In addition, manipulation services are provided to

allow queue entries to be modified. Workflow services allow users and management to monitor and access workflow queue information and to invoke applications directly.

Detailed Description Text (1090):

How an organization approaches the management of its workflow will determine which workflow management tools are appropriate to the organization. In general, there are three types of workflow, production, collaborative, and ad hoc. A production environment involves high transaction rates and thousands of documents in which the rules for a certain document can be defined for most of the time. Examples include accounts payable, insurance claims processing, and loan processing. A collaborative environment involves multiple departments viewing a single document with typically less number of documents than in the production environment. One example is a sales order. Ad hoc workflows arise from the specific temporary needs of a project team whose members become active and inactive depending on their function within the group.

Detailed Description Text (1134):

Component systems model--how the business works Component-orientation is a strategic technology that may significantly impact a user's practice and clients. Component technologies are a natural evolution from object-oriented systems providing a more mature way of packaging reusable software units. Object-oriented systems more closely support business integration framework for solution delivery by shifting design focus away from an underlying technology toward a company's business conduct and functional behaviors. Business entities are represented as objects, which package data and functional behavior. This is in distinct contrast to traditional development approaches that maintain a ubiquitous split between functional behaviors and data.

Detailed Description Text (1174):

Business Components on the entity-centric side of the spectrum tend to represent significant entities in the business domain. Not only do they encapsulate information, but also the behaviors and rules that are associated with those entities. Examples include: Customer, Product, Order, and Inventory. A Customer Business Component would encapsulate everything an organization needs to know about its customers, including customer information (e.g., name, address, and telephone number), how to add new customers, a customer's buying habits (although this might belong in a Customer Account component), and rules for determining if a customer is preferred.

Detailed Description Text (1216):

The following steps describe one technique for identifying Business Components. FIG. 43 illustrates this Business Component Identifying Methodology 4300 including both Planning and Delivering stages 4302, 4304: 1. Start with entity-centric Business Components. For example, the customer is a significant entity in most business domains, therefore a Customer component may be included. A Customer Business Component would encapsulate everything an organization needs to know about its customers, including customer information (e.g., name, address, and telephone number), how to add new customers, a customer's buying habits (although this might belong in a Customer Account component), and rules for determining if a customer is preferred. Entities themselves can be physical or conceptual. For example, customers and products are physical--you can touch them. Orders, on the other hand, are conceptual. An order represents a specific customer's demand for a product. You cannot touch that demand. 2. Look for process-centric Business Components next. Generally speaking, a process-centric Business Component controls the flow of a business process. For example, in the utility industry, a Billing component would process customer, product, pricing, and usage information into a bill. Sometimes one will find an entity associated with the process--in this case, a bill or invoice--but another option is to model this entity as a separate, entity-centric Business Component, thus decoupling it from the process.

Detailed Description Text (1666):

Each project using component-based technology determines how to use OO CASE tools to support an object-oriented methodology and its deliverables. These deliverables range from high-level business process documentation in the business-modeling phase to descriptions of classes in the construction phase. UML compliant CASE tools provide a number of the deliverables that most object methodologies uses, however, there are almost always some deliverables that do not fit in the selected tool. There is also a discrepancy with the CASE tools' ability to comply with UML due to the continuing evolution of UML versions.

Detailed Description Text (1949):

If constants are obtained by other means than explicit language constructs like "public final int HOME\_ADDRESS" than public accessors are used to insulate a client from

changes in how the constant is obtained. In this case the values of each of the constants should be defined privately inside the Constant Class. Public accessors are then provided for clients to obtain the constant values. This allows for "changing constants". Business-related values that may seem constant at design and construction time very often are not. Some of these "constants" may eventually require some logic to determine their value. If clients obtain constants through accessor methods, no changes (except within the accessor) will have to be made if the logic is added. This is a particularly safe practice when programming rules dictate all constants to be stored and retrieved from database tables.

Detailed Description Text (2270):

The Client would first determine the sum total of everything it will need from the business object on the Server machine. The Client makes a request for all of this data from the business object. The business object bundles all the data into a data structure and returns it to the client. The Client will cache this data (using the Caching Proxy pattern) on its local client machine and use it as needed.

Detailed Description Text (2326):

FIG. 128 illustrates a flowchart for a method 12800 for structuring validation rules to be applied to a user interface for maximum maintainability and extensibility. In operations 12802 and 12804, a plurality of user interface widgets are provided along with a plurality of validation rules which govern use of the user interface widgets. A user is allowed in operation 12806 to select the validation rules to associate with the user interface widgets of a first user interface. The validation rules of the user interface widgets of the first user interface are automatically associated across a plurality of separate different user interfaces in operation 12808.

Detailed Description Text (2617):

For example, all business objects could respond to the saveData message, to persist any changes. saveData could first check, privately, if the object was even modified. Then, using private CRUD flags, it could determine whether a save translates into an insert, update, or delete. Finally, saveData could stream out the business object's attributes, based on a defined layout. Then, a transaction persists its business objects by simply iterating over the collection, sending each member saveData.

Detailed Description Text (2623):

FIG. 166 illustrates a flowchart for a method 16600 for retrieving multiple business objects across a network in one access operation. In operation 16602, a business object and a plurality of remaining objects are provided on a persistent store. Upon receiving a request for the business object in operation 16604, it is established which of the remaining objects are related to the business object in operation 16606. The related objects and the business object are retrieved from the persistent store in one operation and it is determined how the retrieved related objects relate to the business object and each other (see operations 16608 and 16610). A graph of relationships of the business and related objects is instantiated in memory in operation 16612.

Detailed Description Text (2624):

An object navigation pattern of accessing the business object and then accessing relationships with the related objects may be used to retrieve the related objects. The relationships between the business and related objects for instantiating the graph of relationships may also be determined from a source object, a set of target objects, and the name of the relationship. Additionally, the establishment of which of the remaining objects are related to the business object and the determination of how the retrieved related objects relate to the business object and each other may be pre-processed before retrieving the selected related objects and the business object from the persistent store.

Detailed Description Text (2644):

FIG. 170 illustrates a flowchart for a method 17000 for implementing an association of business objects without retrieving the business objects from a database on which the business objects are stored. In operations 17002 and 17004, a business object is provided and an instance of an associated object is stored on a database. An association of the business object with the instance of the associated object is determined in operation 17006. In operation 17008, an object identifier is generated containing information including the determination association which is necessary to retrieve the instance of the associated object from the database. The object identifier is loaded when the business object starts in operation 17010. A location of the instance of the associated object on the database is determined in operation 17012 from the object identifier and the instance of the associated object is retrieved from the

database in operation 17014.

Detailed Description Text (2802):

FIG. 188 illustrates a flowchart for a method 18800 for sorting requests that are being unbatched from a batched message. A group of business objects necessary for a transaction are provided in operation 18802. Logically-related requests received from the business objects are grouped in operation 18804. Sorting rules and/or sort weights are obtained in operation 18806 and, in operation 18808, the requests in the message are sorted and placed in a specific order determined from the sorting rules and/or the sort weights. The sorted requests are batched into a single message which is sent to a data server where the requests are unbundled from the message in the specific order (see operations 18810, 18812, and 18814).

Detailed Description Text (2803):

A request may also not be allowed to proceed until all dependent requests are completed. A plurality of transactions may each use the same sorting rules for preventing deadlocks. Optionally, the class represented by each request may be determined so that the sorting rules may be based on a class type. As another option, the sorting rules may include referential integrity rules which ensure that references between two relational tables are valid. In such a situation, a linear ordering of requests may also be created based on the referential integrity rules. The numbering of the position of the request in the linear ordering may also be the weight of that request so that requests with lower weights are processed before requests with higher weights.

Detailed Description Text (2820):

The sorter 19000 will have visibility to sorting rules, or even weights, to determine this order. The rules can typically be based on the class type. Before sending the transaction, the sorter can ask each request which class it represents. In this manner, the sorter can re-order the requests appropriately.



**WEST**

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L8: Entry 7 of 35

File: USPT

Sep 30, 2003

DOCUMENT-IDENTIFIER: US 6629081 B1

TITLE: Account settlement and financing in an e-commerce environment

Detailed Description Text (2206):

The personalization strategy should evaluate the complexity of the personalization, the cost and time to implement and the potential business impact. In many cases, a true one-to-one personalized site may not make sense. Creating millions of varieties of a product will only complicate the interaction to the point that the user is overwhelmed. In some cases engaging in simple personalized dialogues may be the best near and midterm solutions.

Detailed Description Text (2273):

The PMFs are there building blocks for rules and matching logic. Unlike SQL extensions, there is no industry standard method for accessing `Web` content and creating rules. Some approaches are detailed below. Simple Conditional Rules--The simplest process is to define a clear-cut set of rules against which to evaluate the PMFs. These rules are generally simple and have only a few conditions to evaluate. A simple rule would follow this structure: User Variable+Comparison Operator+Predetermined Value (or PMF) Age Young Adult (20-40) The user variable is a specific user's profile attribute or value for the rule's PMF. In this case it is the user's age which may be derived from the user's birth date and the current date. The next element in the structure is a comparison operator. The final element is the PMF or the group or data the rule is based on. Based on the user's age and the granularity of the PMF the rule may have numerous results. Each result may point to a different set of defined content. The entire age rule may be something like this: User's age =Child (<12) deliver content ABC =Teenager (13-19) deliver content DEF =Young Adult (20-40) deliver content GHI =Middle Aged(41-64) deliver content JKL =Senior (>64) deliver content MNO A rule will be made more complex with the addition of a logical operator that allows a rule to have multiple PMFs. For example a rule may simply be `AND` multiple PMFs together. In this example, the rule would look like this: User Variable A+Comparison Operator+Predetermined Value (or PMF) A AND User Variable B+Comparison Operator+Predetermined Value (or PMF) B A piece of the actual rule would look like: Age=Young Adult (20-40) AND Gender=M (Male) This rule would now be the age-gender rule. It evaluates the user's age classification and gender. If the users age classification is `Young Adult` and male, then statement evaluates to be true and action is taken or the specified content is delivered. At first glance, this may appear to be hard coded. If directly placed in a script this would be a true statement. Instead, the infrastructure should be created that can define rules, evaluate rules, assign a rule to a dynamic content area or page, and assign content to specific rule results. Instead of hard coding this with in the application or script, the rule component or dynamic content area (DCA) is placed in the script. When the DCA is encountered, the architecture handles evaluating the rule and matching the defined profile attributes to the rule in order to deliver the appropriate content. Conceptually this is easy, but creating this infrastructure is very difficult. For this reason a rule engine or personalization vendor will be brought in. Numerous independent software vendors (ISVs) are capitalizing on this niche and creating their own proprietary personalization infrastructure. These vendors are covered in more detail in the accompanying Vendor document. Forward Chaining Rules--Forward chaining still uses the fundamentals of simple rules, but facilitates building upon whatever user information may be available at the time. In this case, if only a small amount of information about the user is available, then the rules are determined based only upon that data. Once more information is gathered, the rules allow for more complex conditions to be evaluated against. The rules are set similar to this: User Variable+Comparison Operator+Predetermined Value (or PMF) AND if the following is known User Variable+Comparison Operator+Predetermined Value (or PMF) Age=20-40 AND if Gender is known to be=M The above rule will be evaluated differently according to the amount of

information known about the user. For instance, If all that is known about the user is his/her age the rule will evaluate in one way, if his/her gender is known, then the rule will be evaluated in another way. Learning System (Neural Networks)--The premise behind the learning system is that it will monitor the user's actions and perform differently depending upon what the system learns from the user actions. This technique is a complex combination of rules and relationships using the user's interactions with the site to increase the knowledge of the enterprise about the customer. The best way to describe this is with a definition of neural networks. A neural network is a system of programs and data structures approximating the operation of the human brain. Typically, a neural network is initially "trained" or fed large amounts of data and rules about data relationships (for example, A grandfather is older than a person's father is). A program can then instruct the network how to behave in response to an external stimulus, or it can initiate activity on its own based on the user's actions. Inductive reasoning/Collaborative Filtering--Firefly defines collaborative filtering as a technology that emulate the social processes of people making recommendations based on an understanding of one another's preferences. individual agents track and choose items based on individuals' tastes and preferences. The core technology personalizes both the delivery of content and the knowledge of related people within a defined networked environment, or "taste space." Firefly tools correlate individual users' preferences for specific items based on either explicit or implicit ratings of comparable items in other situations. These ratings may be stored entirely within a single Web site or compiled on the fly from information assembled from individual clients and shared servers. Collaborative Filtering assesses a single set of user preferences to identify an individual community of interest. Collaborative Filtering correlates the tastes on an individual user with the preferences of comparable users to develop a list of personalized recommendations. It is some times referred to as People-to-people matching, and is aimed at automating word-of-mouth kind of information. Canned Queries--A system of canned queries allows the user to choose only certain actions that have been pre-determined for the user. The queries only give the user the options listed, and do not change over time.

Detailed Description Text (2275):

Defining legitimate business rules and models is as important as the infrastructure to evaluate them. The rule may execute and content may be delivered but if the rule doesn't make good business sense the effort is wasted. Business and marketing personnel should be involved in defining the rules and verifying that they are correctly translated and technically implemented. This is another reason that the personalization team should include individuals from IT, the business and marking departments. The team needs to understand their existing and potential customer, the content available, and when and why to display it.

Detailed Description Text (2310):

Personalization Maintenance Facility 10404 The biggest challenges in personalization are determining matching rules for the business's market plans, categorization of the profiles, gathering profile information, and then developing robust content with adequate content indexing. Once these have been established, they should be easily maintained. When designing the personalization services, maintenance of the rules and content should be considered. The people most likely driving this information will not be technology oriented, and may require simple interfaces for altering rules for marketing, advertising, or other personalized content.

Detailed Description Text (2340):

Electronic Rights Management Owners of digital content, including authors and publishers, have been searching for a method to protect against the unauthorized distribution of their works over the Internet. Most content available on the Internet today is freely distributed, often without consideration of the content owner's copyrights and appropriate royalties. Protecting Web content is a difficult task. Items such as copyrighted words, images and other `digital` objects need to be protected from unauthorized (and endless) duplication. Currently, copyright notices can easily be s tripped away. There are a few recent developments aimed at tracking rights violations. Some rights management methods are geared toward identifying legal and illegal uses of a document or digital object. These concepts still require actively searching the Web for signs of abuse. In essence, the methods still allow the content to be extracted and used, basing the majority of the security on trust. Other approaches place a `security wrapper` around the content so it can only be accessed by authorized users. Digital Watermark--The most common method is to add a digital `watermarks`. The watermark is embedded in the background of the image without changing the overall appearance of the image. An agent, sometimes called a "spider" because of the way it crawl s the web, can be used to scan the Internet for the presence of the image or identifier and report

unauthorized URL's. The watermark will stay with the image, even if it is downloaded. Digital Object Identifier (DOI)--This method would associate a unique identifier with the digital content. The identifier would be permanently associated and could potentially be as low level as a paragraph. The DOI concept is only a building block and would still need to be incorporated into a rights management system. Digital Fingerprints--A digital fingerprint is an invisible record of who "touched" an electronic document. Services would be needed to determine who first misused the document (such as by improperly copying or distributing it). Fingerprinting electronic documents is content-dependent and is easiest for document types with a large number of bits. Secure Packaging--This concept prevents the use of the information by placing the item in a logical security envelope. The user may gain access to the information based on the requirements of the security envelope. The security will allow the user to see the abstract, price, rules for use, and other pertinent information. Upon agreement of payment and/or rules by the end user, the user will obtain a key to unlock the document contained within the security envelope.

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L1: Entry 14 of 23

File: USPT

Sep 5, 2000

DOCUMENT-IDENTIFIER: US 6115691 A

TITLE: Computer based process for strategy evaluation and optimization based on customer desired outcomes and predictive metrics

Brief Summary Text (4):

The invention described herein discloses technology that enables individuals and businesses to evolve their decision making capabilities far beyond their current capacity. The present invention expands an individual's capacity to process and apply thousands of pertinent facts when making complex personal and business decisions. The present invention comprises a user-friendly computer program product that enables a user to analyze complex situations, objectively evaluate alternative solutions, and create and optimize personal or business strategies. The software is processor operated on a compatible computer system.

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L1: Entry 16 of 23

File: USPT

Mar 25, 1997

DOCUMENT-IDENTIFIER: US 5615109 A

TITLE: Method of and system for generating feasible, profit maximizing requisition sets

Detailed Description Text (334):

In this instance, the business volume discount item profit maximization calculation begins when processing advances from block 749 to a block 750. The software in block 750 prepares the equations and constraints required for determining the most profitable mix of vendors, units of measure and quantities for purchases made on a business volume, commitment basis. The overall profitability equation for this Class A analysis is created by combining the equations that have been prepared for each business volume discount item. This overall equation is the objective function that is maximized by the processing in the advanced system for inventory management. This objective function is detailed in the Appendix in Section 2C. After the maximization calculation has been completed, the resulting mix is stored in the business volume mix table 188. The solution is then compared to the solution generated for the base level requisitions for these items by the software in a block 751 to determine if the profit enhancement solution generated a profit increase during the business volume discount time period (in comparison with the base level profit). If a profit increase wasn't generated by the profit enhancement, the software in block 751 changes the requisition status variable for the stored base level requisitions to `f` for final and advances processing to the as-ordered item profit enhancement calculation after storing the changes in the item requisition table 185 application database 90. If a profit increase was generated by the new mix, then the requisition status variable of the stored base level requisitions is changed to `p` for profit enhanced or `d` if the calculation is a deficit calculation and processing advances to a block 752 where a new set of requisitions is prepared to reflect the new mix. These calculations are completed in accordance with the procedures described previously for requisition determination. If the forecast time period extends beyond the business volume discount time period, then the requisitions for this time period are also adjusted in the manner described previously. From block 752 processing advances to a block 753 where the capital efficiency of the profit enhancing change is evaluated in accordance with the appropriate equation from Table 79. The calculated changes are then stored in the application database 90. More specifically, the changes in requisition status that were made to the base level requisitions are stored in table 185, the profit enhancing requisition set is stored in the alternate requisition table 187 if the calculation was not a deficit calculation and the capital efficiency information is stored in the business volume mix table 188. If the calculation was part of a deficit calculation, then the requisitions are saved to the item requisition table 185 with a maximized status (req.sub.-- st=m) and the prior set of requisitions are deleted. Processing then advances to the Class A, profit enhancement calculation for as-ordered items.

**WEST**

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L11: Entry 5 of 6

File: USPT

Feb 22, 2000

DOCUMENT-IDENTIFIER: US 6029195 A

TITLE: System for customized electronic identification of desirable objects

Detailed Description Text (136):

A technique similar to rapid profiling is of interest in market research (or voter research). Suppose that the target objects are consumers. A particular attribute in each target profile indicates whether the consumer described by that target profile has purchased product X. A decision tree can be built that attempts to determine what value a consumer has for this attribute, by consideration of the other attributes in the consumer's profile. This decision tree may be traversed to determine whether additional users are likely to purchase product X. More generally, the top few levels of the decision tree provide information, valuable to advertisers who are planning mass-market or direct-mail campaigns, about the most significant characteristics of consumers of product X.

Detailed Description Text (137):

Similar information can alternatively be extracted from a collection of consumer profiles without recourse to a decision tree, by considering attributes one at a time, and identifying those attributes on which product X's consumers differ significantly from its non-consumers. These techniques serve to characterize consumers of a particular product; they can be equally well applied to voter research or other survey research, where the objective is to characterize those individuals from a given set of surveyed individuals who favor a particular candidate, hold a particular opinion, belong to a particular demographic group, or have some other set of distinguishing attributes. Researchers may wish to purchase batches of analyzed or unanalyzed user profiles from which personal identifying information has been removed. As with any statistical database, statistical conclusions can be drawn, and relationships between attributes can be elucidated using knowledge discovery techniques which are well known in the art.

Detailed Description Text (139):

In the case of profiling new products, a decision tree may be useful for determining its profile quickly (for example if certain general attributes are known about the product). Rapid profiling may also be used to automatically present a selection of attributes (of at least two) with which a user selects which attribute most aptly describes the product and/or provides a weighted value of its relevance thereto. Alternatively, the decision tree presents (for each node) at least one exemplar item which the user rates indicating the degree of similarity between the system presented item(s) and the new item of interest. Additionally, for the sake of optimizing the confidence of the users being surveyed, the decision tree may also identify the user whose profiles suggest the greatest degree of similarity with the attributes or items being presented as queries. In one variation in this regard, the system selects users which are most familiar with two or more competitive products. The system performs a rapid profiling of these users, however, for product attributes which are most relevant to both products (which is produced from the result of combining or averaging both product profiles). Example attributes which are most telling about the user's perception of comparative value and quality when making a selection may include: performance, aesthetics, comfort, convenience of use, value, overall satisfaction, personal preference, as well as other relevant specific product attributes which may be determined as a part of the user's profile. By applying this technique over multiple product brands within a given category, a relative, comparative measure can be determined through averaging of results across all participating users on an attribute specific basis. Using the techniques described above which allow for pseudonymous credentialing of users or organizations by other entities, these evaluation based attributes may be automatically ascribed to each product in the form of credentials, also manually ascribed comments or descriptions may be (provided and subsequently rated

by other users) to further leverage consumer participation in adding characterization attributes to a given product's or entities profile. These averaged consumer rating based credentials also act as a means of normalizing biased opinions or rogue attempts to defame a product or entity and thus are used to substantiate claims which consumers have provided and other consumers have substantiated either in the form of on-line or off-line advertisements and coupons. Comparative ratings of competitive products are achievable by targeting users which have experience with (two or more) products being compared. The most relevant attributes which both products share are presented using these rapid profiling techniques. In order to develop a truly robust statistically confident comparison across all products on an attribute by attribute basis, it is important to use this comparative product rating approach, to identify automatically which product comparisons are most statistically relevant in order to provide statistical confidence for all products being evaluated (in this comparative product context) to validation of the values of each attribute using different combinations of product comparisons is important in order to assure statistical confidence (between different users). These rated attribute credentials may also be segmented by user types using knowledge discovery techniques. For example, it is possible that users of a certain demographic, product affinity or other attribute type may have different preferences demands or expectations, thus may evaluate a product's overall quality or value (or other product attribute) differently. Additionally, these credentials may be provided as resolution credentials, for example in combination with a credential provided by a neutral third party which proves that the user is in good standing with its customers (that a "significant" number of complaints were not submitted). Brokerage exchanges which match buyers and sellers and/or act as a directory thereof may wish to apply these techniques in order to provide users with some unbiased feedback from peers about products and services being solicited peer to peer rating based resolution credentials. It is also possible to automatically present a set of survey questions to a group of users who have been previously interacting on-line with another user. Because of the subjective nature involved in characterizing individuals based upon their personal, or even professional proficiencies and weaknesses, human involvement in providing manual characterizations of a sample of users is necessary. The nature of the interaction (an associate, professional, personal, or social) may be determined through automatic means (based on the content profiles of dialogues and lists of "similar" users which they interact with) in order to automatically ascribe an associative attribute which identifies both other individuals, his/her relationship with the user and the nature of their interaction. Individuals may be automatically presented with targeted questions appropriate to the nature thereof in accordance with their mutual relationship through anticipation of which attributes or queries other individuals (like friends, associates, business partners or employers) are most likely to request in the future. These questions are ideally requested from multiple users, their values are then averaged and may be ascribed to that user as resolution credentials. In case of disputes mediation by a judicating third party may be required. Additionally, the system may further anticipate the types of questions which are most likely to be requested by other users in the future. This approach may also be used by the system to profile skills sets, qualifications, issues of personality, character or qualification to perform a particular task. It may also direct queries to the users most likely to be qualified knowledgeable in certain popular domains, which are most likely to be relevant (and thus anticipate the types of queries that other users are likely to request. Similarly, users may be used to answer questions or provide descriptive characterizations of certain tasks or queries using rapid profiling in this way as well. Thus, tasks, (consulting on the internet, intranet, etc.) may be profiled according to the types of users who ascribe, subjective, or objective attributes to best describe the task, or attributes may be ascribed which characterize the most appropriate individuals according to their professional qualifications or other relevant attributes, such as the tasks which they have successfully performed. Accordingly, task attributes may also be conveyed to the best candidates to whom these tasks are directed. As suggested, task performance may be manually evaluated in order to provide the system with a source of performance based relevance feedback. The users who submitted the task offers are given the opportunity to provide an evaluation of the level of the quality of the work (or query response) as well as overall satisfaction regarding the response to the request offer. The requester may provide an evaluation in the form of a set of feedback comments. Additionally, the rapid profiling technique will automatically generate a set of the most relevant attributes in the form of a survey which allow the user to rate the attributes according to each relevant attribute parameter as perceived by the user. (These attributes may, of course, include those which are humanly ascribed as well). Unlike the method for automatic query routing the current system for finding optimal user skill profiles to match the particular submitted task description, the current system potentially embodies a much more complex knowledge construction requiring precision-oriented statistical knowledge about the

nature of the user's numerous skill sets and the submitted tasks.

Detailed Description Text (361):

Computer users frequently join other users for discussions on computer bulletin boards, newsgroups, mailing lists, and real-time chat sessions over the computer network, which may be typed (as with Internet Relay Chat (IRC)), spoken (as with Internet phone), or videoconferenced. These forums are herein termed "virtual communities." In current practice, each virtual community has a specified topic, and users discover communities of interest by word of mouth or by examining a long list of communities (typically hundreds or thousands). The users then must decide for themselves which of thousands of messages they find interesting from among those posted to the selected virtual communities, that is, made publicly available to members of those communities. If they desire, they may also write additional messages and post them to the virtual communities of their choice. The existence of thousands of Internet bulletin boards (also termed newsgroups) and countless more Internet mailing lists and private bulletin board services (BBS's) demonstrates the very strong interest among members of the electronic community in forums for the discussion of ideas about almost any subject imaginable. Presently, virtual community creation proceeds in a haphazard form, usually instigated by a single individual who decides that a topic is worthy of discussion. There are protocols on the Internet for voting to determine whether a newsgroup should be created, but there is a large hierarchy of newsgroups (which begin with the prefix "alt.") that do not follow this protocol.

Detailed Description Text (440):

Particularly within large organizations, it is advantageous to disseminate company (inside) news and information to those employees for whom the information is "valuable". Using the same basic profiling techniques (above). Virtual dialogues (either physical meetings or entirely virtual meetings, either e-mail or telephony based) may be automatically profiled on the fly and used for responsive indexing and notification of those users to whom the information is valuable (and to whom it is privy). As the content of such a dialogue may change with time, new users may be prompted to join while others may be prompted or alternatively (for confidentiality reasons) may be mandated to depart. Text summarization techniques may also be used to allow relevant users who missed the virtual meeting to have access to a synopsis version thereof. Document profiles of such meetings may also be organized into a hierarchical cluster tree using automatic cluster labeling or relevant terms within each cluster (Steve's reference hierarchical cluster menu trees from previous patent). This technique is useful for intuitive browsing of large archives of this information). Digital credentials may be prescribed to each employee by superiors which indicate for him/her the specific information contexts (by clusters) which are mandatory, which are recommended, which are neutral, and which are inappropriate for the employee to either access or (for the mandatory credential) require also mandatory (real-time) attendance. A scheduling agent maybe used to organize meeting times in advance by contacting and informing the most relevant users as to the stated objectives of the meeting. This is done by coordinating available time slots to optimize the availability of the most number of user highest relevance users to the dialogue (the user may also indicate among his/her available time the level of convenience as well). As above suggested, in virtual work groups a virtual meeting's objective may be to solve a particular problem, and develop a strategy, plan or proposal the stated objective of which may be used to index a virtual group whose complement and skills provides an optimal solution thereto.